

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/706, 275A  
Source: IFW16  
Date Processed by STIC: 03/15/2006

***ENTERED***



IFW16

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/706,275A

DATE: 03/15/2006  
 TIME: 12:41:42

Input Set : E:\413.app.txt  
 Output Set: N:\CRF4\03152006\J706275A.raw

4 <110> APPLICANT: Lowell, George H.  
 5       White, Gregory L.  
 6       Burt, David S.  
 7       Leanderson, Tomas B.  
 8       Good, Michael F.  
 9       Batzloff, Michael R.  
 11 <120> TITLE OF INVENTION: VACCINE  
 14 <130> FILE REFERENCE: 484112.413  
 16 <140> CURRENT APPLICATION NUMBER: US 10/706,275A  
 17 <141> CURRENT FILING DATE: 2003-11-13  
 19 <150> PRIOR APPLICATION NUMBER: US 60/425,409  
 20 <151> PRIOR FILING DATE: 2002-11-15  
 22 <150> PRIOR APPLICATION NUMBER: AU 2002302132  
 23 <151> PRIOR FILING DATE: 2002-11-15  
 25 <160> NUMBER OF SEQ ID NOS: 19  
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 29 <210> SEQ ID NO: 1  
 30 <211> LENGTH: 14  
 31 <212> TYPE: PRT  
 32 <213> ORGANISM: Artificial Sequence  
 34 <220> FEATURE:  
 35 <223> OTHER INFORMATION: antigenic peptide sequence derivative of S. pyogenes  
 37 <400> SEQUENCE: 1  
 38 Ala Ser Arg Glu Ala Lys Lys Gln Val Glu Lys Ala Leu Glu  
 39    1                   5                   10  
 42 <210> SEQ ID NO: 2  
 43 <211> LENGTH: 29  
 44 <212> TYPE: PRT  
 45 <213> ORGANISM: Artificial Sequence.  
 47 <220> FEATURE:  
 48 <223> OTHER INFORMATION: antigenic peptide derivative of S. pyogenes with  
 49       flanking sequences  
 51 <400> SEQUENCE: 2  
 52 Lys Gln Ala Glu Asp Lys Val Lys Ala Ser Arg Glu Ala Lys Lys Gln  
 53    1                   5                   10                   15  
 55 Val Glu Lys Ala Leu Glu Gln Leu Glu Asp Lys Val Lys  
 56       20               25  
 59 <210> SEQ ID NO: 3  
 60 <211> LENGTH: 19  
 61 <212> TYPE: PRT  
 62 <213> ORGANISM: Artificial Sequence  
 64 <220> FEATURE:  
 65 <223> OTHER INFORMATION: antigenic peptide sequence EIN19

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/706,275A

DATE: 03/15/2006

TIME: 12:41:42

Input Set : E:\413.app.txt

Output Set: N:\CRF4\03152006\J706275A.raw

67 <400> SEQUENCE: 3  
68 Glu Ile Asn Thr Glu Glu Glu Gly Thr Pro Asp Gln Ile Ser Ser Leu  
69 1 5 10 15  
70 Ile Glu Lys  
74 <210> SEQ ID NO: 4  
75 <211> LENGTH: 30  
76 <212> TYPE: PRT  
77 <213> ORGANISM: Artificial Sequence  
79 <220> FEATURE:  
80 <223> OTHER INFORMATION: antigenic peptide sequence KQL30  
83 <400> SEQUENCE: 4  
84 Lys Gln Leu Glu Asp Arg Val Gln Gln Leu Glu Thr Glu Lys Gln Ile  
85 1 5 10 15  
86 Ser Glu Ala Ser Arg Lys Ser Ala Glu Asp Lys Val Lys Gln  
87 20 25 30  
90 <210> SEQ ID NO: 5  
91 <211> LENGTH: 20  
92 <212> TYPE: PRT  
93 <213> ORGANISM: Artificial Sequence  
95 <220> FEATURE:  
96 <223> OTHER INFORMATION: antigenic peptide sequence p145  
99 <400> SEQUENCE: 5  
100 Leu Arg Arg Asp Leu Asp Ala Ser Arg Glu Ala Lys Lys Gln Val Glu  
101 1 5 10 15  
102 Lys Ala Leu Glu  
103 20  
106 <210> SEQ ID NO: 6  
107 <211> LENGTH: 28  
108 <212> TYPE: PRT  
109 <213> ORGANISM: Artificial Sequence  
111 <220> FEATURE:  
112 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
115 <400> SEQUENCE: 6  
116 Gln Leu Glu Asp Lys Val Lys Gln Leu Arg Arg Asp Leu Asp Ala Ser  
117 1 5 10 15  
118 Arg Glu Ala Lys Glu Glu Leu Gln Asp Lys Val Lys  
119 20 25  
122 <210> SEQ ID NO: 7  
123 <211> LENGTH: 28  
124 <212> TYPE: PRT  
125 <213> ORGANISM: Artificial Sequence  
127 <220> FEATURE:  
128 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
131 <400> SEQUENCE: 7  
132 Leu Glu Asp Lys Val Lys Gln Ala Arg Arg Asp Leu Asp Ala Ser Arg  
133 1 5 10 15  
134 Glu Ala Lys Lys Glu Leu Gln Asp Lys Val Lys Gln  
135 20 25  
138 <210> SEQ ID NO: 8

RAW SEQUENCE LISTING DATE: 03/15/2006  
PATENT APPLICATION: US/10/706,275A TIME: 12:41:42

Input Set : E:\413.app.txt  
Output Set: N:\CRF4\03152006\J706275A.raw

139 <211> LENGTH: 28  
140 <212> TYPE: PRT  
141 <213> ORGANISM: Artificial Sequence  
143 <220> FEATURE:  
144 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
147 <400> SEQUENCE: 8  
148 Glu Asp Lys Val Lys Gln Ala Glu Arg Asp Leu Asp Ala Ser Arg Glu  
149 1 5 10 15  
150 Ala Lys Lys Gln Leu Gln Asp Lys Val Lys Gln Leu  
151 20 25  
154 <210> SEQ ID NO: 9  
155 <211> LENGTH: 28  
156 <212> TYPE: PRT  
157 <213> ORGANISM: Artificial Sequence  
159 <220> FEATURE:  
160 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
163 <400> SEQUENCE: 9  
164 Asp Lys Val Lys Gln Ala Glu Asp Asp Leu Asp Ala Ser Arg Glu Ala  
165 1 5 10 15  
166 Lys Lys Gln Val Gln Asp Lys Val Lys Gln Leu Glu  
167 20 25  
170 <210> SEQ ID NO: 10  
171 <211> LENGTH: 28  
172 <212> TYPE: PRT  
173 <213> ORGANISM: Artificial Sequence  
175 <220> FEATURE:  
176 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
179 <400> SEQUENCE: 10  
180 Lys Val Lys Gln Ala Glu Asp Lys Leu Asp Ala Ser Arg Glu Ala Lys  
181 1 5 10 15  
182 Lys Gln Val Glu Asp Lys Val Lys Gln Leu Glu Asp  
183 20 25  
186 <210> SEQ ID NO: 11  
187 <211> LENGTH: 28  
188 <212> TYPE: PRT  
189 <213> ORGANISM: Artificial Sequence  
191 <220> FEATURE:  
192 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
195 <400> SEQUENCE: 11  
196 Val Lys Gln Ala Glu Asp Lys Val Asp Ala Ser Arg Glu Ala Lys Lys  
197 1 5 10 15  
198 Gln Val Glu Lys Lys Val Lys Gln Leu Glu Asp Lys  
199 20 25  
202 <210> SEQ ID NO: 12  
203 <211> LENGTH: 28  
204 <212> TYPE: PRT  
205 <213> ORGANISM: Artificial Sequence  
207 <220> FEATURE:  
208 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base

RAW SEQUENCE LISTING DATE: 03/15/2006  
PATENT APPLICATION: US/10/706,275A TIME: 12:41:42

Input Set : E:\413.app.txt  
Output Set: N:\CRF4\03152006\J706275A.raw

211 <400> SEQUENCE: 12  
212 Lys Gln Ala Glu Asp Lys Val Lys Ala Ser Arg Glu Ala Lys Lys Gln  
213 1 5 10 15  
214 Val Glu Lys Ala Val Lys Gln Leu Glu Asp Lys Val  
215 20 25  
218 <210> SEQ ID NO: 13  
219 <211> LENGTH: 28  
220 <212> TYPE: PRT  
221 <213> ORGANISM: Artificial Sequence  
223 <220> FEATURE:  
224 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
227 <400> SEQUENCE: 13  
228 Gln Ala Glu Asp Lys Val Lys Gln Ser Arg Glu Ala Lys Lys Gln Val  
229 1 5 10 15  
230 Glu Lys Ala Leu Lys Gln Leu Glu Asp Lys Val Gln  
231 20 25  
234 <210> SEQ ID NO: 14  
235 <211> LENGTH: 28  
236 <212> TYPE: PRT  
237 <213> ORGANISM: Artificial Sequence  
239 <220> FEATURE:  
240 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
243 <400> SEQUENCE: 14  
244 Ala Glu Asp Lys Val Lys Gln Leu Arg Glu Ala Lys Lys Gln Val Glu  
245 1 5 10 15  
246 Lys Ala Leu Glu Gln Leu Glu Asp Lys Val Gln Leu  
247 20 25  
250 <210> SEQ ID NO: 15  
251 <211> LENGTH: 29  
252 <212> TYPE: PRT  
253 <213> ORGANISM: Artificial Sequence  
255 <220> FEATURE:  
256 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base  
259 <400> SEQUENCE: 15  
260 Lys Gln Ala Glu Asp Lys Val Lys Ala Ser Arg Glu Ala Lys Lys Gln  
261 1 5 10 15  
262 Val Glu Lys Ala Leu Glu Gln Leu Glu Asp Lys Val Lys  
263 20 25  
266 <210> SEQ ID NO: 16  
267 <211> LENGTH: 15  
268 <212> TYPE: PRT  
269 <213> ORGANISM: Artificial Sequence  
271 <220> FEATURE:  
272 <223> OTHER INFORMATION: antigenic peptide sequence derivative of S.  
273 pyogenes  
275 <400> SEQUENCE: 16  
276 Ala Ser Arg Glu Ala Lys Lys Gln Val Glu Gln Lys Ala Leu Glu  
277 1 5 10 15  
280 <210> SEQ ID NO: 17

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/706,275A

DATE: 03/15/2006

TIME: 12:41:42

Input Set : E:\413.app.txt

Output Set: N:\CRF4\03152006\J706275A.raw

281 <211> LENGTH: 4  
282 <212> TYPE: PRT  
283 <213> ORGANISM: Artificial Sequence  
285 <220> FEATURE:  
286 <223> OTHER INFORMATION: Synthesized immunopotentiating spacer linked to  
287 the J14 peptide  
289 <400> SEQUENCE: 17  
290 Cys Tyr Gly Gly  
291 1  
294 <210> SEQ ID NO: 18  
295 <211> LENGTH: 4  
296 <212> TYPE: PRT  
297 <213> ORGANISM: Artificial Sequence  
299 <220> FEATURE:  
300 <223> OTHER INFORMATION: Synthesized immunopotentiating spacer linked to  
301 the J14 peptide  
303 <400> SEQUENCE: 18  
304 Gly Gly Tyr Cys  
305 1  
308 <210> SEQ ID NO: 19  
309 <211> LENGTH: 5  
310 <212> TYPE: PRT  
311 <213> ORGANISM: Artificial Sequence  
313 <220> FEATURE:  
314 <223> OTHER INFORMATION: Synthesized anchor and immunopotentiating space  
315 sequence  
317 <400> SEQUENCE: 19  
318 Lys Gly Gly Tyr Cys  
319 1 5

**VERIFICATION SUMMARY**

PATENT APPLICATION: **US/10/706,275A**

DATE: 03/15/2006

TIME: 12:41:43

Input Set : **E:\413.app.txt**

Output Set: **N:\CRF4\03152006\J706275A.raw**